

IN THE CLAIMS:

Please CANCEL claims 82-87 without prejudice or disclaimer in accordance with the following:

1-2. (canceled)

3. (previously presented) A method to generate additional information to guarantee seamless playback, the method comprising:

generating data stream information for each of two or more data streams having packet data to which information on an arrival time of the respective packet data is added, the data stream information including seamless time control information and seamless playback information, which indicates whether a corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream, or the seamless time control information, without the seamless playback information, to control an output time of the corresponding data stream to be seamlessly reproduced,

wherein the seamless time control information includes a reference time, with the reference time being an output time of a first packet data of the corresponding data stream to be seamlessly reproduced; and

outputting the generated data stream information to a medium.

4. (previously presented) A method to generate additional information to guarantee seamless playback, the method comprising:

generating data stream information for each of two or more data streams having packet data to which information on an arrival time of the respective packet data is added, the data stream information including seamless time control information to control an output time of a corresponding data stream to be seamlessly reproduced, or the seamless time control information and seamless playback information, the seamless playback information indicating whether the corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream,

wherein the seamless time control information includes an offset information, with the offset information being a value of a difference between an original arrival time of a first packet of the corresponding data stream to be seamlessly reproduced and an output time of the first packet of the corresponding data stream; and

outputting the generated data stream information to a medium.

5. (previously presented) A method to generate additional information to guarantee seamless playback, the method comprising:

generating data stream information for each of two or more data streams having packet data to which information on an arrival time of the respective packet data is added, the data stream information including seamless time control information to control an output time of a corresponding data stream to be seamlessly reproduced, or the seamless time control information and seamless playback information, the seamless playback information indicating whether the corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream,

wherein seamless time control information includes gap length information, with the gap length information being a value of an amount of time from an output time of a last packet of the preceding data stream to an output time of a first packet of the corresponding data stream to be seamlessly reproduced; and

outputting the generated data stream information to a medium.

6. (previously presented) The method of claim 5, wherein the seamless time control information is valid only when the seamless information has a value indicating "seamless playback."

7. (previously presented) The method of claim 5, wherein each of the data streams includes a plurality of packs, each pack including the packet data to which information on the arrival time of the respective packet data is added, and an extra header which is added to the packet data with arrival time information.

8-50. (canceled)

51. (previously presented) A method to guarantee seamless playback of data streams, comprising:

generating data stream information for each of two or more data streams, each data stream having packet data including information on an arrival time of the respective packet data, the data stream information including seamless time control information to control an output time of a corresponding data stream to be seamlessly reproduced, or the seamless time control information and seamless playback information, the seamless playback information indicating whether the corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream; and

generating seamless playback of the two or more data streams based on the data stream

information,

wherein the seamless time control information includes a reference time, with the reference time being an output time of a first packet data of the corresponding data stream to be seamlessly reproduced.

52. (previously presented) A method to guarantee seamless playback of data streams, comprising:

generating data stream information for each of two or more data streams, each data stream having packet data including information on an arrival time of the respective packet data, the data stream information including seamless time control information to control an output time of a corresponding data stream to be seamlessly reproduced, or the seamless time control information and seamless playback information, the seamless playback information indicating whether the corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream; and

generating seamless playback of the two or more data streams based on the data stream information,

wherein the seamless time control information includes offset information, with the offset information being a value of a difference between an original arrival time of a first packet of the corresponding data stream to be seamlessly reproduced and an output time of the first packet of the corresponding data stream.

53. (previously presented) A method to guarantee seamless playback of data streams, comprising:

generating data stream information for each of two or more data streams, each data stream having packet data including information on an arrival time of the respective packet data, the data stream information including seamless time control information to control an output time of a corresponding data stream to be seamlessly reproduced, or the seamless time control information and seamless playback information, the seamless playback information indicating whether the corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream; and

generating seamless playback of the two or more data streams based on the data stream information,

wherein the seamless time control information includes gap length information, with the gap length information being a value of an amount of time from an output time of a last packet of the preceding data stream to an output time of a first packet of the corresponding data stream to be seamlessly reproduced.

54-73. (canceled)

74. (previously presented) The method of claim 53, wherein the seamless time control information is valid only when the seamless information has a value indicating "seamless playback."

75. (previously presented) The method of claim 53, wherein each of the data streams includes a plurality of packs, each pack including the packet data to which information on the arrival time of the respective packet data is added, and an extra header which is added to the packet data with arrival time information.

76. (previously presented) The method of claim 53, wherein the seamless time control information further includes a reference time and/or offset information, with the reference time being the output time of the first packet of the corresponding data stream, and the offset information being a value of a difference between an original arrival time of the first packet of the corresponding data stream and the output time of the first packet of the corresponding data stream.

77. (previously presented) The method of claim 5, wherein the seamless time control information further includes a reference time and/or offset information, with the reference time being the output time of the first packet of the corresponding data stream, and the offset information being a value of a difference between an original arrival time of the first packet of the corresponding data stream and the output time of the first packet of the corresponding data stream.

78. (previously presented) A method to generate additional information to guarantee seamless playback, the method comprising:

generating data stream information for each of two or more data streams, each data stream having packet data including information on an arrival time of the respective packet data, the data stream information including seamless time control information to control an output time of a corresponding data stream to be seamlessly reproduced, or the seamless time control information and seamless playback information, the seamless playback information indicating whether the corresponding data stream is to be seamlessly reproduced after playback of a preceding data stream,

wherein the seamless time control information includes a reference time, offset information and/or gap length information, with the gap length information being a value of an amount of time from an output time of a last packet of the preceding data stream to an output time of a first packet of the corresponding data stream to be seamlessly reproduced; and reproducing the two or more data streams based on the generated data stream information.

79. (previously presented) The method of claim 78, wherein the reference time is the output time of the first packet of the corresponding data stream, and the offset information is a value of a difference between an original arrival time of the first packet of the corresponding data stream and the output time of the first packet of the corresponding data stream.

80. (previously presented) The method of claim 78, wherein the seamless time control information is valid only when the seamless information has a value indicating "seamless playback."

81. (previously presented) The method of claim 78, wherein each of the data streams includes a plurality of packs, each pack including the packet data to which information on the arrival time of the respective packet data is added, and an extra header which is added to the packet data with arrival time information.

82-87. (cancelled)